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# EPA-Minnesota AG Certainty Program—Is it up to the Task of Cleaning Our Waters

Sherry A. Enzler

# EPA-MINNESOTA AG CERTAINTY PROGRAM— IS IT UP TO THE TASK OF CLEANING OUR WATERS?

Sherry A. Enzler†



## I. INTRODUCTION

At the close of the first half of the twentieth century, it was clear that the waters of the states "were only marginally suitable for even low-quality uses such as irrigation, stock watering and industrial intake."[1] Early federal efforts to control water pollution presumed that "the only water pollution problems worthy of being addressed flowed from sanitary sewers[,] . . . from municipal waste treatment plants[,] . . . and from industries dumping large loads of

† Sherry A. Enzler J.D., Ph.D. is a Research Fellow in the Department of Forest Resources and a Resident Fellow at the Institute on the Environment at the University of Minnesota.

1. Robert L. Glicksman & Matthew R. Batzel, *Science, Politics, Law, and the Arc of the Clean Water Act: The Role of Assumptions in the Adoption of a Pollution Control Landmark*, 32 WASH. U. J.L. & POL'Y 99, 99 (2010).

raw organic waste material into waterways."[2] But as early as 1967, at least one forward-thinking observer noted:

> I am convinced that both from a technical and from an economic point of view most point source pollution can and will be brought under control in this country in the next 5 to 10 years. As this happens the problem of pollution from non-point or diffused sources will become our greatest challenge. In no area will the challenge be greater than in agricultural pollution. When we finally succeed in collecting and adequately treating our industrial and municipal wastes we will very likely find that many of our rivers are still dirty, unsafe, and unusable . . . .[3]

That day is at hand. Today "nonpoint" water pollution from agricultural pollution in particular poses one of the single largest remaining threats to our national water quality.[4] Minnesota, like many other states, struggles to address the impacts of agricultural pollution on its water resource.[5] In southern Minnesota, for example, the state has spent almost one billion dollars to clean the Minnesota River, much of it invested in voluntary agricultural incentive programs, but "the Minnesota River is, well, not much better than it was in 1990."[6] A Minnesota Pollution Control Agency (MPCA) report, issued in May 2011, documented the failure of voluntary agricultural programs to abate water pollution on the

2. N. William Hines, *History of the 1972 Clean Water Act: The Story Behind How the 1972 Act Became the Capstone on a Decade of Extraordinary Environmental Reform* 4 (Univ. of Iowa Legal Studies, Research Paper No. 12-12, 2012), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2045069.

3. James M. Quigley, *Water Quality and Agriculture in the United States: An Overall View*, *in* AGRICULTURE AND THE QUALITY OF OUR ENVIRONMENT 134 (Nyle C. Brady ed., 1967).

4. *See generally* Donn W. Furman, *Poisoned Waters: An Examination of Agricultural Water Pollution*, 3 SAN JOAQUIN AGRIC. L. REV. 99 (1993); James M. McElfish, Jr. et al., *Inventing Nonpoint Controls: Methods, Metrics and Results*, 17 VILL. ENVTL. L.J. 87 (2006); J.B. Ruhl, *Farms, Their Environmental Harms, and Environmental Law*, 27 ECOLOGY L.Q. 263 (2000).

5. *See* McElfish et al., *supra* note 4, at 128–64 (discussing Minnesota's various programs to address pollution from agricultural and forestry sources).

6. Josephine Marcotty, *Minnesota River Still Ailing*, STAR TRIB., May 10, 2011, http://www.startribune.com/local/121530289.html (referencing BENJAMIN LUNDEEN & MICHAEL KOSCHAK, MINN. POLLUTION CONTROL AGENCY, REVISITING THE MINNESOTA RIVER ASSESSMENT PROJECT: AN EVALUATION OF FISH AND INVERTEBRATE COMMUNITY PROGRESS (2011) [hereinafter REVISITING THE MINNESOTA RIVER], *available at* http://www.pca.state.mn.us/index.php/view-document.html?gid=15821).

Minnesota River, causing many to wonder "whether the state's largely voluntary approach to protecting its waters is working" and whether we can continue to rely on "random acts of conservation" to address agricultural contamination of our water resources.[7]

Our failure to regulate agricultural point sources outside of concentrated animal feeding operations (CAFO)[8] and nonpoint agricultural pollution has come at a tremendous cost to both our nation's waters and the waters of the individual states. Farmland consumes about one half of the landmass in the contiguous United States, and water pollution emanating from agricultural sources is the largest remaining contributor of water pollution in the United States,[9] "affecting 70 percent of impaired rivers and streams and forty-nine percent of impaired lake acreage."[10] Fifty-three percent of Minnesota's landscape, or 24.7 million acres, is dedicated to agricultural production.[11]

The breadth of the agricultural footprint on our nation's waters is so significant that one commentator pondered whether we have abdicated the management of our nation's natural resources to farmers, including our water: "'Farmers and ranchers control how most of our land is used and managed . . . . *They are literally, the most important soil, water, fish, wildlife, and recreational managers in the U.S.*' They have not, however, been particularly good stewards of our water resources . . . ."[12]

On January 17, 2012, U.S. Environmental Protection Agency (EPA) Administrator Lisa Jackson, U.S. Department of Agriculture (USDA) Secretary Tom Vilsack, and Minnesota Governor Mark Dayton signed a memorandum of understanding (MOU) for a

7. *Id.*

8. Only CAFOs are treated as point sources requiring a National Pollutant Discharge Elimination System (NPDES) permit under the CWA. 40 C.F.R. § 122.23(a) (2008). Not all animal feedlots are considered CAFOs requiring an NPDES permit, however. Generally, to be classified as a CAFO, an animal feedlot must confine more than 1000 animal units. *Id.*

9. Ruhl, *supra* note 4, at 288.

10. U.S. ENVTL. PROT. AGENCY & U.S. DEP'T OF AGRIC., CLEAN WATER ACTION PLAN: RESTORING AND PROTECTING AMERICA'S WATERS 9 (1998).

11. MINN. POLLUTION CONTROL AGENCY, MINNESOTA'S NONPOINT SOURCE MANAGEMENT PROGRAM PLAN 2008 § 8-259 (2008) [hereinafter MPCA].

12. Douglas R. Williams, *When Voluntary, Incentive-Based Controls Fail: Structuring a Regulatory Response to Agricultural Nonpoint Source Water Pollution*, 9 WASH. U. J.L. & POL'Y 21, 22 (2002) (first alteration in original) (emphasis added) (quoting CRAIG A. COX, WHAT SHOULD BE THE ROLE OF RESOURCE STEWARDSHIP IN FUTURE FARM POLICY? (2001), *available at* http://ageconsearch.umn.edu/handle/33062).

voluntary agriculture certification program intended to address the challenges posed by agriculture to Minnesota's water quality.[13] The program, quickly dubbed the Ag Certainty Program, will release farmers from potential future water quality regulations for up to ten years if they voluntarily implement Best Management Practices (BMP) designed to reduce water pollution.[14] The federal-state partners lauded the new program as a "bold" step to protect our rivers, lakes, and streams.[15] But the program, which will be managed by the Minnesota Department of Agriculture (MnDAg), quickly met with criticism. Environmental interests viewed the proposal with a high degree of skepticism, characterizing it as yet another voluntary scheme to address agricultural water pollution and observing that Minnesota's forty-year history with voluntary programs has resulted in insufficient reductions of agricultural pollution in our lakes, rivers, and streams—"[the Ag Certainty Program] enshrines the old ways, defying all rationality," observed Whitney Clark of Friends of the Mississippi River.[16] Agricultural interests, on the other hand, are hesitant to endorse the Ag Certainty Program, noting the "devil's in the details."[17] Can the Ag Certainty Program produce significant improvements to our water quality, or is this yet another voluntary incentive program, which like so many before it is doomed to failure? The outcome of this experiment will depend, in large part, on whether this new voluntary program embodies essential characteristics of successful voluntary programs.

Part II of this article outlines the Clean Water Act (CWA) framework for cleaning the nation's waters and its treatment of agricultural pollution. Part III provides a brief analysis of our

13. Stephanie Hemphill, *New Program to Protect Water Quality; Details to Be Worked Out*, MINN. PUB. RADIO NEWS, Jan. 17, 2012, http://minnesota.publicradio.org/display/web/2012/01/17/water-quality/.

14. *Id.*; *Minnesota Agricultural Water Quality Certification Program*, MINN. DEPARTMENT AGRIC., http://www.mda.state.mn.us/protecting/waterprotection/awqcprogram/awqcprogramfaq.aspx (last visited Jan. 1, 2013).

15. Press Release, U.S. Envtl. Prot. Agency, Administrator Jackson, Secretary Vilsack Sign Historic Agreement with State of Minnesota to Help Farmers Protect Rivers, Streams and Lakes (Jan. 17, 2012), *available at* http://yosemite.epa.gov/opa/admpress.nsf/0/9E2AAEF7CBCC2D468525798800692A58.

16. Josephine Marcotty, *Minnesota Launches Mississippi River Cleanup Effort*, STAR TRIB., Jan. 17, 2012, http://www.startribune.com/local/137454108.html?refer=y; Marcotty, *supra* note 6.

17. Sara Wyant, *Farmers, Environmental Groups Search for "Regulatory Certainty"*, AGRIPULSE (Jan. 18, 2012), http://www.agri-pulse.com/Farmers-environmental-groups-search-for-regulatory-certainty-01182012.asp.

attempts to address agricultural nonpoint pollution with voluntary programs and the essential elements necessary for successful voluntary programs. Part IV of this article describes and analyzes the potential opportunities and pitfalls presented by the proposed Agricultural Certainty Program.

## II. HOW DID WE GET TO THIS POINT? THE CLEAN WATER ACT AND AGRICULTURAL POLLUTION

The primary objective of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."[18] To achieve this objective Congress set out a number of interim and long-term goals, the most immediate of which was the "swimmable fishable" goal—by 1983, water quality, wherever attainable, should be sufficient "for the protection and propagation of fish, shellfish, and wildlife and provide for recreation in and on the water."[19] The CWA also had the loftier goal of eliminating all pollution discharges by 1985.[20] While early federal pollution control efforts focused on discharges from industrial and municipal point sources, Congress in 1987 amended the CWA to clarify the role of nonpoint sources in meeting these national goals, directing the adoption and implementation of programs to control nonpoint sources of pollution.[21]

### *A. The Clean Water Act Framework*

#### *1. Water Quality Standards and Effluent Limits*

The CWA was the culmination of a multi-generational attempt to address the quality of our nation's waters.[22] The framework of the CWA was greatly influenced by the 1948 Water Pollution Control Act,[23] which was premised on the assumption that the states

18. Clean Water Act of 1972, Pub. L. No. 92-500, § 101(a), 86 Stat. 816 (codified at 33 U.S.C. § 1251(a) (2006)).

19. 33 U.S.C. § 1251(a)(2).

20. *Id.* § 1251(a)(1).

21. Water Quality Act of 1987, Pub. L. No. 100-4, § 319, 10 Stat. 52 (codified at 33 U.S.C. § 1329).

22. Hines, *supra* note 2, at 2. Hines provides an excellent overview of national attempts to control water pollution dating back to the Rivers and Harbors Act of 1899. *Id.* at 6.

23. Water Pollution Control Act, Pub. L. No. 80-845, 62 Stat. 1155 (1948). Hines notes that historically there was significant debate over the scope of the federal role in regulating water pollution. Until the mid-twentieth century the

and local units of government were primarily responsible for regulating water pollution.[24] But by the mid-1960s it became apparent that state and local control of water pollution was generating a race to the bottom as southern and western states used the promise of lax water regulations to lure northern industries to relocate. This prompted Congress, in 1965, to design a national regulatory water quality floor in the guise of ambient water quality standards.[25] Setting and implementing the new ambient water quality standards was largely left to the states and involved a three-step process.[26] The states were first required to designate use classifications for each water body,[27] including: "public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other legitimate uses."[28] States were then directed to set ambient water quality standards to support the water body's intended use.[29] These water quality standards were submitted to the Department of the Interior for approval.[30] After setting water quality standards, states were required to develop water quality implementation plans.[31] Hypothetically the federal government could enforce state water quality standards but rarely took steps to do so.[32] By 1970 only half

federal government limited its role in water management to federally defined navigable waters. Hines, *supra* note 2, at 4–11. The U.S. Supreme Court's 1966 ruling in *United States v. Standard Oil Co.*, 384 U.S. 224 (1966), changed the playing field. In *Standard Oil*, the Supreme Court reversed its prior decisions and held that the 1899 Refuse Act gave the Army Corps of Engineers broad authority to regulate pollution discharges into navigable waters regardless of whether the pollution discharge impeded navigation. *Id.* at 228–30; *see also* Hines, *supra* note 2, at 23, 28–30 (discussing the influence of the *Standard Oil* case on the development of the CWA).

24. Glicksman & Batzel, *supra* note 1, at 101–02.

25. *Id.* at 102. The term "ambient water quality standards" refers to the water quality standards for individual bodies of water, such as a river, lake, stream, or wetland. *See generally* U.S. ENVTL. PROT. AGENCY, METHODOLOGY FOR DERIVING AMBIENT WATER QUALITY CRITERIA FOR THE PROTECTION OF HUMAN HEALTH (2000), *available at* http://water.epa.gov/scitech/swguidance/standards/upload/2005_05_06_criteria_humanhealth_method_complete.pdf (explaining the criteria for setting ambient water quality).

26. Hines, *supra* note 2, at 20.

27. Water Quality Act of 1965, Pub. L. No. 89-234, § 5(a), 79 Stat. 903.

28. *Id.* § 5(c)(3).

29. *Id.*

30. Hines, *supra* note 2, at 20–21.

31. *Id.* at 20 (citing U.S. DEP'T OF THE INTERIOR, GUIDELINES FOR ESTABLISHING WATER QUALITY STANDARDS FOR INTERSTATE WATERS (1966)).

32. Glicksman & Batzel, *supra* note 1, at 102–04; *see also* Hines, *supra* note 2, at 21.

of the states had approved water quality standards and Congress concluded that present attempts to abate water pollution were wholly inadequate.[33]

In 1972, Congress enacted the CWA to address the shortcomings of the 1948 Water Pollution Control Act.[34] The CWA encompasses a dual system of water quality standards: ambient water quality standards and effluent limits.[35] While the Water Pollution Control Act relied exclusively on ambient water quality standards, the CWA recognized that use of ambient water quality standards alone permitted pollution sources to take advantage of the assimilative capacity of water bodies to accommodate pollution discharges.[36] That is, under the Water Pollution Control Act, once pollution was discharged by a source into a water body, the pollution mingled with pollution discharged from other sources, and it became difficult to tell what pollution came from what discharge source and which source was responsible for the ultimate exceedance of ambient water quality standards. This made it difficult to bring an enforcement action against individual discharge sources because science was unable to identify a cause-and-effect link between ambient water quality and any given pollutant discharge.[37] By designing dual water-quality standards, Congress intended to overcome these and other shortcomings of the Water Pollution Control Act.[38]

Structurally, the CWA carried forward the requirement that states set use-based ambient water quality standards for their intrastate waters subject to EPA approval.[39] If a state failed to adopt ambient water quality standards or the EPA determined that the standards were inadequate, the EPA was authorized to promulgate water quality standards for the state.[40] But the CWA did not rely solely on ambient water quality standards. To resolve the scientific uncertainty challenge to implementation of ambient water quality

33. Glicksman & Batzel, *supra* note 1, at 102–04.
34. *Id.*
35. An effluent limit is a restriction on the "quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources" into navigable waters. 33 U.S.C. § 1362(11) (2006).
36. Glicksman & Batzel, *supra* note 1, at 119.
37. *Id.* at 120–21.
38. *Id.* at 119.
39. 33 U.S.C. § 1311(a).
40. *Id.* § 1313(b).

standards, the CWA relied on effluent limits.[41] Effluent limits were based, at least initially, on best available technology to control pollution at the point of discharge, thus eliminating the need to premise discharge standards on a causal link between the quality of the discharge and ambient water quality.[42] Effluent limits were applied to water discharges from each individual point source or group of point sources.[43] Ambient water quality standards under the CWA thus became the water quality floor.[44] Effluent limits were met by applying best-available technology to individual point sources in anticipation that the cumulative application of effluent limits across point sources would bring us closer to meeting ambient water quality standards and eventually permit us to meet the no-discharge aspirations of the CWA.[45]

*2. The Point Source (NPDES) Program*

The CWA prohibits point sources from discharging any pollutant[46] into navigable waters without first obtaining a National Pollutant Discharge Elimination System (NPDES) permit,[47] which requires permittees to meet technology-based effluent limits.[48] Effluent limits are set by industry category and are subject to adjustment if the receiving water body does not meet ambient water quality standards.[49] In 1974, the EPA delegated NPDES permitting authority to the MPCA.[50]

A point source is defined by the CWA as "any discernible, confined and discrete conveyance, including but not limited to *any*

41. *See* Glicksman & Batzel, *supra* note 1, at 119–20 (discussing congressional reasoning for adoption of both ambient water quality limits and effluent limits).

42. *Id.*

43. 33 U.S.C. §§ 1311(b), 1312.

44. Glicksman & Batzel, *supra* note 1, at 124.

45. *Id.* at 125 (citing H.R. REP. NO. 92-911, at 101–02 (1972)).

46. Pollution is defined as "the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water." 33 U.S.C. § 1362(19).

47. *Id.* §§ 1311(a), 1342(a).

48. *Id.* §§ 1318, 1342.

49. *See generally* Natural Res. Def. Council, Inc. v. Train, 510 F.2d 692 (D.C. Cir. 1974) (containing a detailed discussion of the operation of the CWA and how effluent limits are set).

50. *See* 33 U.S.C. § 1342(b) (permitting the EPA to delegate management of the NPDES program to the states); MINN. POLLUTION CONTROL AGENCY, MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) GENERAL PERMIT REISSUANCE PROCESS AND REQUIREMENTS 1 (2012), *available at* http://www.pca.state.mn.us/index.php/view-document.html?gid=17090.

*pipe, ditch, channel,* tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged."[51] The definition of pollution includes "agricultural waste discharge[]."[52] A plain reading of these definitions suggests that agricultural drainage systems would seemingly meet the literal definition of a point source. However, the EPA was reluctant to include agricultural operations in the NPDES program from day one, instead adopting regulations exempting agricultural point sources from the NPDES program.[53] The Natural Resources Defense Council (NRDC) challenged the EPA exemption, arguing that the EPA had no legal authority to exempt a whole class of point sources from the NPDES program.[54] The EPA rationalized the exemption not on the basis that agricultural operations were not point sources, but rather that it was difficult to set effluent limits for agricultural operations[55] and that the sheer number of agricultural operations made regulation difficult.[56] The D.C. Circuit Court rejected the feasibility argument, noting that the NPDES program allowed the EPA to issue NPDES permits without setting effluent limits.[57] The EPA could issue NPDES permits while developing the technology necessary to set technological effluent limits for agricultural point sources.[58] The court also rejected the EPA's numbers argument because the EPA had the legal authority to issue general NPDES permits for classes of discharge sources, but the EPA had no legal authority to exempt an entire class of point

51. 33 U.S.C. § 1362(14) (emphasis added).

52. *Id.* § 1362(6); *see also* Alfred R. Light, *The Myth of Everglades Settlement*, 11 ST. THOMAS L. REV. 55, 57 (1998). *See generally* David Zaring, *Agriculture, Nonpoint Source Pollution, and Regulatory Control: The Clean Water Act's Bleak Present and Future*, 20 HARV. ENVTL. L. REV. 515 (1996) (discussing attempts to address nonpoint pollution using the CWA).

53. Natural Res. Def. Council, Inc. v. Costle, 568 F.2d 1369, 1372 (D.C. Cir. 1977). The EPA regulation exempted certain farming operations, including CAFOs and "all irrigation return flows from areas of less than 3000 contiguous acres or 3000 noncontiguous acres that use the same drainage system; all nonfeedlot, nonirrigation agricultural point sources; and separate storm sewers containing only storm runoff uncontaminated by any industrial or commercial activity," from the NPDES program. *Id.*

54. *Id.* at 1373.

55. *Id.* at 1377–78.

56. *Id.* at 1380.

57. *Id.* at 1378–79.

58. *Id.*

discharge sources from the NPDES program.[59] The court ordered the EPA to apply the NPDES program to agricultural point sources.[60]

Shortly after the EPA promulgated regulations for agricultural point sources, Congress amended the CWA to exempt both agricultural stormwater runoff and "return flows from irrigated agriculture" (irrigation return flow exemption) from the NPDES program.[61] Neither Congress nor the EPA have defined the terms agriculture stormwater runoff or irrigation return flow, nor have they addressed the scope of these exemptions. It is unclear, for example, whether the agricultural storm water and irrigation return flow exemptions apply to ditch systems, which collect discharges from agricultural operations where such ditch systems are built, maintained, and managed not by individual farmers, but by county boards sitting as drainage ditch authorities.[62] At least one court has found the agricultural stormwater runoff and irrigation return flow exemptions apply *only* to those entities *actually* engaged in agriculture.[63] Likewise, while it is clear that the CWA exemptions include diffuse runoff from agricultural lands,[64] it is unclear whether the exemptions extend to drainage ditch systems that carry waters from both agricultural and non-agricultural sources. Thus, Hanson and Bender argue, the point source definitions would seemingly apply to agriculture runoff collected and conveyed through ditch systems,[65] such as the 20,000 miles of man-made ditches in Minnesota that carry nutrient- and sediment-laden farm field runoff directly into Minnesota's rivers, lakes, and streams.[66]

59. *Id.* at 1381–82.

60. *Id.* at 1383.

61. 33 U.S.C. §§ 1362(14), 1342(l) (2006). *See generally* Andrew C. Hanson & David C. Bender, *Irrigation Return Flow or Discrete Discharge? Why Water Pollution from Cranberry Bogs Should Fall Within the Clean Water Act's NPDES Program*, 37 ENVTL. L. 339 (2007) (containing a detailed discussion of the irrigation return flow exemption for agriculture).

62. *See generally* MINN. STAT. § 103E.011 (2010) (outlining the powers of drainage ditch authorities). A drainage ditch authority is the board of county commissioners or joint county drainage authority with jurisdiction over a drainage ditch system in its county or counties. *Id.* § 103E.005, subdiv. 4, 9.

63. Reynolds v. Rick's Mushroom Serv., Inc. 246 F. Supp. 2d 449, 456–57 (E.D. Pa. 2003).

64. *See* discussion *supra* Part II.A.2.

65. *See* Hanson & Bender, *supra* note 61, at 349.

66. Mark Steil, *New Study Targets Farm Ditches*, MINN. PUB. RADIO NEWS (Mar. 2, 2006), http://minnesota.publicradio.org/display/web/2006/03/01/ditchstudy/; *see also* Hanson & Bender, *supra* note 61, at 348–50

Nonetheless, because of the stormwater and irrigation return flow exemptions, agricultural point sources have largely been lumped in with, and are treated as, non-regulated nonpoint sources.

*3. Controlling Nonpoint Pollution*

Even in 1972 Congress understood that addressing the nation's water-quality challenges required "vigorously" addressing nonpoint pollution,[67] noting that "[s]ediment, often associated with agricultural activities, is by volume our major pollutant, not only from the degrading effect of the sediment, but because it also transports other pollutants."[68] But control of nonpoint pollutants, including agricultural pollution, is largely left to the individual states.[69] Nor is the term "nonpoint pollution" defined in the CWA, although the term is understood to mean "pollution that arises from many dispersed activities over large areas . . . not traceable to any single discrete source."[70]

Congress's decision to exclude nonpoint pollution, and agricultural water pollution in particular, from the CWA regulatory scheme was based on a number of factors. First, from a technical perspective, the means of controlling and measuring nonpoint pollution was difficult.[71] Unlike point sources, pollution from nonpoint sources is diffuse and arguably difficult to monitor, making the enforcement of effluent limits, which require monitoring at the point of discharge, with then-existing technology, difficult,[72] although not impossible.[73] Even if it were possible to set effluent limits, these sources are unlike point sources

(discussing ditches as conduits for fertilizer-laden runoff).

67. H.R. REP. NO. 92-911, at 109 (1972).

68. STAFF OF S. COMM. ON PUBLIC WORKS, 93D CONG., A LEGISLATIVE HISTORY OF THE WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972, at 1470–71 (Comm. Print 1973).

69. JAMES SALZMAN & BARTON H. THOMPSON, JR., ENVIRONMENTAL LAW AND POLICY 153 (2d ed. 2007).

70. League of Wilderness Defenders v. Forsgren, 309 F.3d 1181, 1184 (9th Cir. 2002); *see also* United States v. Earth Scis., Inc., 599 F.2d 368, 373 (10th Cir. 1979).

71. Glicksman & Batzel, *supra* note 1, at 115.

72. Jonathan Cannon, *A Bargain for Clean Water*, 17 N.Y.U. ENVTL. L.J. 608, 615–16 (2008) (citing S. REP. NO. 92-414 (1972), *reprinted in* 1972 U.S.C.C.A.N. 3668, 3706 (alleging that "many nonpoint sources of pollution are beyond present technology of control.")).

73. Cannon notes that since 1972, there have been a number of projects that have demonstrated the ability to reduce nonpoint pollution. *Id.*

that could be controlled through technology-driven abatement mechanisms. Controlling diffuse pollution requires land-use controls, and "[w]hat was the EPA supposed to do, tell farmers how to farm?"[74] The inability to control pollution from diffuse sources does not explain, however, the exemption from regulation of agricultural drainage conveyance systems, which technically meet the definition of a point source and are, nonetheless, exempted from regulation as point sources.[75] And even if we presume that diffuse sources of pollution are technically difficult to monitor and abate, technical difficulty has not stopped Congress or the EPA from addressing equally challenging environmental dilemmas; indeed, "[e]very environmental program of the past thirty years has had to grapple with scientific uncertainty . . . [and] inconsistencies."[76]

Second, it is possible Congress believed that it would have to regulate land use to control nonpoint pollution, and it was reluctant to do so.[77] This observation is supported by the "scant" CWA legislative history, which suggests that the "states feared the prospect of 'federal land use' [control] and fought to retain [local] control over land use by maintaining control over supervision of nonpoint source pollution."[78]

Third, there is a national tendency to romanticize farming, which undermines the ability to regulate agriculture. The tendency harkens back to the revolutionary era and Jefferson's concept of agrarian democracy.[79] De Tocqueville, in his discourse on democracy in America, argues that one of the foundations of American democracy is the abundant landmass available to millions of Americans for cultivation.[80] *Democracy in America* is grounded in

74. William L. Andreen, *Water Quality Today—Has the Clean Water Act Been a Success?*, 55 ALA. L. REV. 537, 562 (2004).

75. *See supra* Part II.A.2.

76. Linda A. Malone, *Myths and Truths That Ended the 2000 TMDL Program*, 20 PACE ENVTL. L. REV. 63, 76 (2002) [hereinafter Malone, *Myths and Truths*]; *see also* OLIVER HOUCK, THE CLEAN WATER ACT TMDL PROGRAM: LAW, POLICY AND IMPLEMENTATION 87 (1999)

77. Cannon, *supra* note 72, at 616; Malone, *Myths and Truths*, *supra* note 76, at 77–78.

78. Malone, *Myths and Truths*, *supra* note 76, at 78–79.

79. *See generally* Linda A. Malone, *Reflections on the Jeffersonian Ideal of an Agrarian Democracy and the Emergence of an Agricultural and Environmental Ethic in the 1990 Farm Bill*, 12 STAN. ENVTL. L.J. 3 (1993) [hereinafter Malone, *Jeffersonian Ideal*].

80. ALEXIS DE TOCQUEVILLE, DEMOCRACY IN AMERICA 277–86 (J.P. Mayer ed., George Lawrence trans., First Perennial Classics 2000) (1835).

the Jeffersonian ideal of an agrarian democracy, which in turn is predicated on the independent farmer.[81] This ideal was amplified and shaped in Minnesota, as in many states in the upper Midwest, by the stories of our immigrant ancestors who, with the aid of the Homestead Act, forged new lives, often in hostile conditions on Minnesota's prairies.[82]

But the landscape of farming in America has changed. While there are still a substantial number of family farms,[83] at the close of the twentieth century only 124,000 people, or less than one percent of our population, own over half of America's farmland,[84] causing one commentator to observe that the Jeffersonian ideal of the independent farmer is dead.[85] Nonetheless, we continue to premise public policy decisions, including water policy, on the family farm:

> Modern economic realities . . . have undermined the independence of the farmer and farms have ceased to be self-sustaining . . . .
>
> The virtual extinction of the Jeffersonian farmer, however, did not extinguish the Jeffersonian ideal. Congress' reluctance to dictate environmental norms for agriculture is rooted in a reverence for an independence which no longer exists. . . . [T]he Jeffersonian ideal of an agrarian democracy impeded environmental reform, and wrongly so.[86]

Fourth, and perhaps most important, is the power of the agricultural lobbying interest. Not only do family farms constitute a significant voting bloc, but both the agrichemical and food processing industries are closely linked to the farming industry and politically align themselves with farming interests.[87] Additionally, over the past decades the American Farm Bureau Federation, which "purports to speak for all farms[,] . . . has become one of the

81. Malone, *Jeffersonian Ideal*, *supra* note 79, at 3.

82. *See, e.g.*, O.E. ROLVAAG, GIANTS IN THE EARTH (1927). Rolvaag is the father of Karl Rolvaag, the thirty-first governor of the State of Minnesota. *Governors of Minnesota: Karl F. Rolvaag*, MINN. HIST. SOC'Y, http://www.mnhs.org/people/governors/gov/gov_33.htm (last visited Jan. 8, 2013).

83. In 2010, ninety-six percent of all farms were family-owned. *Family & Small Farms*, U.S. DEP'T AGRIC., http://www.nifa.usda.gov/nea/ag_systems/in_focus/familyfarm_if_overview.html (last visited Jan. 8, 2013).

84. Malone (1993), *supra* note 79, at 3.

85. *Id.* at 46.

86. *Id.*

87. Ruhl, *supra* note 4, at 331–32.

most powerful lobbying forces in the nation," consistently and successfully fighting all attempts to impose any form of environmental regulation on farms.[88] In 1987, for example, when Congress attempted to amend the CWA by connecting receipt of farm subsidies to the adoption of BMPs and conservation practices, the American Farm Bureau Federation, the National Cattlemen's Beef Association, and the Texas State Soil and Water Conservation Board quickly leveraged their political resources, causing Senator Bentsen (D-Tex) to threaten to kill the amendment unless the linkage between farm subsidies and conservation practices was dropped.[89] Needless to say, the linkage between farm subsidies and conservation practices did not make it into the final amendments.[90]

Despite its reluctance to regulate nonpoint pollution, Congress has attempted to grapple with the issue, relying on planning and financial aid programs. Congress has, however, left the heavy lifting to the states. Since 1987, Congress and the EPA have attempted to address nonpoint source pollution through CWA section 319 nonpoint source management programs. The 1987 CWA amendments essentially split the nonpoint world in half, bringing urban and industrial nonpoint stormwater pollution under the regulatory tent, but leaving agricultural nonpoint pollution outside.[91] Agricultural pollution was to be managed through the non-regulatory section 319 program[92]—in the words of Professor Houck, "In 1987 Congress looked agricultural pollution in the eye and fainted."[93]

Section 319 requires the state to prepare and submit for EPA approval a report identifying "navigable waters . . . which, without additional action to control nonpoint sources of pollution, cannot

88. *Id.* at 332; *see also* Christopher B. Connard, *Sustaining Agriculture: An Examination of Current Legislation Promoting Sustainable Agriculture as an Alternative to Conventional Farming Practices*, 13 PENN ST. ENVTL. L. REV. 125, 133–35 (2004) (discussing the political power of the farming industry and the American Farm Bureau Federation in particular).

89. Oliver A. Houck, *Ending the War: A Strategy to Save America's Coastal Zone*, 47 MD. L. REV. 358, 378 (1988).

90. *Id.* Section 208 of the CWA represents Congress's first attempt to address nonpoint agricultural pollution, using financial assistance to incentivize farmers to adopt BMPs. 33 U.S.C. §§ 1281(a), (c), 1288(b)(2)(F), (j) (2006). Congress ceased funding the section 208 program in 1981. Williams, *supra* note 12, at 69–70.

91. Houck, *supra* note 89, at 376; Williams, *supra* note 12, at 72.

92. Houck, *supra* note 89, at 376.

93. *Id.* at 377.

reasonably be expected to attain or maintain applicable water quality standards";[94] and identifying the significant nonpoint water pollution sources for said waters.[95] Section 319 management plans must also describe how the state will control nonpoint sources, including reliance on BMPs and other "measures."[96] Section 319, which relies upon a federal grant program to encourage state compliance[97] has, however, been notoriously underfunded.[98] Without the assurance of federal funding to underwrite agricultural nonpoint programs, most states "are unwilling, or unable" to aggressively attack sources of agricultural nonpoint pollution.[99]

Minnesota's most recent 319 report confirms that agriculture is a primary source of sediment and nutrient pollution in impaired lakes, rivers, and streams and has identified a number of BMPs to address agricultural sources of sedimentation and nutrient loading in Minnesota's waters.[100] However, section 319 authorizes but does not require the states to adopt enforcement measures to ensure BMPs are actually adopted; nor does it require states to penalize nonpoint source polluters that fail to adopt BMPs.[101] Minnesota has chosen not to undertake a regulatory regime to assure adoption of BMPs and other conservation practices by the agricultural sector, relying instead on financial incentives.[102]

Agricultural limitations notwithstanding, section 303(d) of the CWA could hypothetically provide an alternative avenue to tackle agricultural water pollution.[103] Many policy analysts view section 303(d) as a "second-string safeguard" and the only real means to address nonpoint agricultural pollution under the CWA.[104] Section 303(d) uses the state's water quality standards as the basis to set pollution loads or "total maximum daily loads" (TMDL) for priority

94. 33 U.S.C. § 1329(a)(1)(A).
95. *Id.* § 1329(a)(1)(B).
96. *Id.* § 1329(a)(1)(C).
97. *Id.* § 1329(h).
98. Williams, *supra* note 12, at 75.
99. *Id.*
100. *See generally* MPCA, *supra* note 11, at ch. 8–9.
101. 33 U.S.C. § 1329(b)(2)(B); *see also* Robin Kundis Craig, *Local or National? The Increasing Federalization of Nonpoint Source Pollution Regulation*, 15 J. ENVTL. L. & LITIG. 179, 190 (2000).
102. *See generally* MPCA, *supra* note 11, at ch. 8–9.
103. 33 U.S.C. § 1313(d).
104. Jim Vergura & Ron Jones, *The TMDL Program: Land Use and Other Implications*, 6 DRAKE J. AGRIC. L. 317, 320 (2001).

impaired water bodies.[105] Once the state establishes its water standards, section 303(d) requires the state to: (1) identify water bodies that fail to meet ambient water quality standards despite effluent limit point source controls; (2) rank impaired water bodies; and (3) for each impaired water body, establish TMDLs at a level designed to achieve ambient water standards[106] (loading capacity).[107] Section 303(d) makes no distinction between point sources and nonpoint sources.[108] If a state fails to adopt TMDLs, the EPA is authorized to promulgate TMDLs for the state.[109]

Establishing a TMDL is only the first step in the TMDL process. Once a TMDL is set, states are required to impose additional controls or water quality-based effluent limits on point sources through waste load allocations (WLA)[110] incorporated in point sources' NPDES permits.[111] Nonpoint sources are assigned load allocations (LA). An LA is the part of the total pollution load in a TMDL that is allocated to a nonpoint source.[112] The TMDL is the sum of pollutants equal to point source WLAs plus nonpoint source LAs, background source allocations, and a safety margin[113] that a water body can receive and still meet ambient water quality standards.[114] Theoretically the TMDL specifies the volume of a pollutant, such as phosphorus, that a water body can receive and still meet state water quality standards. After setting the TMDL the state prepares a water quality management plan[115] documenting how it will implement the TMDL,[116] including controlling sources of nonpoint pollution.[117] The EPA has determined that it lacks the authority to implement TMDL nonpoint load reductions and must,

105. 33 U.S.C. § 1313(d).
106. *Id.* § 1313(d)(1) .
107. 40 C.F.R. § 130.2(f) (2012).
108. Pronsolino v. Nastari, 291 F.3d 1123, 1137 (9th Cir. 2003). In *Pronsolino* the Ninth Circuit, pointing to the House Committee Report, acknowledged that Congress, in enacting section 303(d), recognized that the use of effluent limits to control point sources would not result in attainment of ambient water quality standards. *Id.* at 1134.
109. 33 U.S.C. § 1313(d)(2).
110. 40 C.F.R. § 130.2(h).
111. *Id.* § 130.7(a).
112. *Id.* § 130.2(g).
113. 33 U.S.C. § 1313(d)(1)(C); 40 C.F.R. § 130.7(c).
114. 40 C.F.R. § 130.2(i).
115. *See id.* § 130.6(a).
116. 33 U.S.C. § 1313(e)(3)(F).
117. 40 C.F.R. § 130.8(b)(4).

therefore, rely on the state to actually control nonpoint pollution.[118]

Because TMDLs are predicated on ambient water quality standards, using TMDLs to regulate nonpoint agricultural pollution places the states squarely in the conundrum they had with point sources prior to the adoption of effluent limits—the states are trying to back into control of nonpoint pollution from water quality standards. Meanwhile, many in the farming community continue to sing that old refrain—that there is no causal link between declining water quality standards and my farming practices.[119]

## III. "SOMETHING'S GOTTA GIVE"

### *A. The Problem with Using Voluntary Incentive Programs to Achieve Water Quality Performance Improvements*

Minnesota, like many other states, has struggled to redress agricultural pollution outside of the NPDES program, relying primarily on voluntary incentive and subsidy programs.[120] A voluntary environmental program is an effort to improve environmental quality that does not force participation.[121] Voluntary environmental programs depend on the good will of those willing, but not required, to participate.

118. *But see* Michael C. Blumm & William Warnock, *Roads Not Taken: EPA vs. Clean Water*, 33 ENVTL. L. 79 (2003). Blumm and Warnock argue that in large part our failure to address our water pollution challenges is due to the EPA's lack of interest in pursuing a broad interpretation of the CWA, an interpretation "that would construe some of the statute's ambiguities to fit the scope of the nation's water pollution problem." *Id.* at 80. Blumm and Warnock are particularly damning of the EPA's failure to grapple with nonpoint pollution, arguing, "It simply has been more convenient for the EPA to treat nonpoint source pollution as only the states' problem, and then to interpret broadly the pollution sources it defines as nonpoint, than to confront the difficulties of overseeing nonpoint source control." *Id.* at 110.

119. *See* Press Release, Minn. Soybean Research & Promotion Council, Research Points to "Natural Causes" as Source of Most Sediment in Minnesota River (Oct. 10, 2010), *available at* http://www.mnsoybean.org/images/uploads/Satish_Gupta_Sediment_Study_final_1.pdf.

120. *See generally* MPCA, *supra* note 11, §§ 8-259 to 9-323 (discussing strategies to address nonpoint agricultural pollution).

121. Brian M. Dowd, Daniel Press & Marc Los Huertos, *Agricultural Nonpoint Source Water Pollution Policy: The Case of California's Central Coast*, 128 AGRIC. ECOSYSTEMS & ENV'T 151, 152 (2008).

There are a number of federal grant programs that are used by states, including Minnesota, to encourage farmers to voluntarily participate in strategies to address nonpoint pollution. EPA financial incentive programs account for approximately ten percent of federal funding available to address nonpoint agricultural pollution.[122] As previously noted, the CWA section 319 program provides grant funding for local watershed-based programs,[123] including agricultural BMPs and conservation practices.[124] However, by far the greatest inducement for farmers to adopt BMPs and conservation practices is provided by the Farm Bill, which "provide[s] 86 percent of the total federal funding potentially available for water quality, conservation, and watershed restoration projects,"[125] including: the Conservation Reserve Program (CRP), which provides funding to retire environmentally sensitive farmlands for ten to fifteen years;[126] the Environmental Quality Incentives Program (EQIP), which provides technical, financial, and educational assistance to farmers to facilitate BMP adoption;[127] the Conservation Reserve Enhancement Program (CREP), which funds long-term conservation easements and encourages farmers to adopt conservation practices;[128] and the Wildlife Habitat Incentive Program (WHIP), which funds improvements to fish and wildlife habitat on agricultural lands.[129]

Minnesota actively participates in a number of these voluntary federal programs. The MPCA administers two assistance programs under the umbrella of the section 319 program to encourage watershed management of nonpoint pollution: (1) the Minnesota Clean Water Partnership (CWP) grant program and loan program and (2) the federal section 319 grant program.[130] Between 1997 and 2007, Minnesota invested over $91 million in section 319 and

122. Craig Cox, *U.S. Agricultural Conservation Policy and Programs: History, Trends and Implications*, *in* U.S. AGRICULTURAL POLICY AND THE 2007 FARM BILL 124 fig.2 (Kaush Arha et al. eds., 2006); Cannon, *supra* note 72, at 627–28.
123. McElfish et al., *supra* note 4, at 96–99.
124. Cannon, *supra* note 72, at 627.
125. Cox, *supra* note 122, at 124.
126. Williams, *supra* note 12, at 104.
127. *Id.* at 109–10.
128. McElfish et al., *supra* note 4, at 92.
129. *Id.* at 94.
130. MINN. POLLUTION CONTROL AGENCY, AN OVERVIEW OF THE CLEAN WATER PARTNERSHIP PROGRAM 1 (2009), *available at* http://www.pca.state.mn.us/index.php/view-document.html?gid=10220; MPCA, *supra* note 11, at ES-II.

Minnesota CWP projects to address nonpoint pollution[131] and implemented 2783 BMPs.[132] Although Minnesota keeps a record of the number and cost of these projects, it does not actually measure the reduction of pollution attributable to these BMPs, relying instead on self-reported estimates provided by the eLINK modeling system.[133]

Minnesota also participates in a number of Farm Bill conservation incentive programs, ranking third in the nation in federal Farm Bill conservation funding.[134] It has used federal Farm Bill funding to place an estimated 80,000 acres under CREP easements in the Minnesota River Basin and another 1.8 million acres in the CRP across the state.[135] It is, however, unclear whether Minnesota can sustain these numbers as the acreage offered by agricultural operators for enrollment in CREP and CRP has declined, primarily because of increased land prices.[136] Minnesota also participates in EQIP, the Wetlands Reserve Program, the Conservation Security Program, and WHIP.[137]

At the state level, Minnesota citizens have made significant financial commitments to clean water. In 2006, Minnesota passed the Clean Water Legacy Act, dedicating financial resources to "protect, restore, and preserve the quality of Minnesota's surface waters."[138] The Act recognizes that nonpoint pollution sources have a responsibility to participate and support Minnesota's efforts to achieve its water quality goals,[139] and supports clean water by funding assistance and incentives.[140] Minnesotans extended their commitment to clean water in 2008, passing the Clean Water, Land

131. MPCA, *supra* note 11, at ES-II.
132. *Id.*
133. MINN. POLLUTION CONTROL AGENCY, GUIDELINES FOR REPORTING IMPLEMENTATION PROJECTS IN ELINK4WEB: EPA 319 & CLEAN WATER PARTNERSHIP GRANTS (2009), *available at* http://www.pca.state.mn.us/index.php/view-document.html?gid=6256; McElfish et al., *supra* note 4, at 134; *Conservation Implementation: Tools for Calculating Pollution Reduction Estimates*, MINN. BOARD WATER & SOIL RESOURCES, http://www.bwsr.state.mn.us/practices/index.html (last visited Nov. 14, 2012).
134. MPCA, *supra* note 11, at 2-59 to -60.
135. *Id.* at 2-61.
136. *Id.*
137. *Id.* at 2-61 to -64.
138. Clean Water Legacy Act, MINN. STAT. § 114D.10, subdiv. 1 (2010).
139. *Id.* § 114D.10, subdiv. 2.
140. *Id.* § 114D.10, subdiv. 1–2.

and Legacy Amendment (Legacy Amendment), a constitutional amendment dedicating funding

> to protect our drinking water sources; to protect, enhance, and restore our wetlands, forests, and fish, game and wildlife[;] . . . and to protect, enhance, and restore our lakes, rivers, streams, and groundwater by increasing the sales and use tax rate . . . by three-eighths of one percent on taxable sales.[141]

Thirty-three percent of the revenue raised by the sales tax increase must "be deposited in the clean water fund and may be spent only to protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation."[142] Money generated by the Legacy Amendment "must supplement traditional sources of funding [clean water] . . . and may not be used as a substitute" to regular environmental appropriations.[143] Money generated by the Legacy Amendment is deposited in the Clean Water Fund.[144]

One of the Clean Water Fund's primary investments is in voluntary BMP programs intended to redress agricultural pollution sources. The Clean Water Council has adopted two performance measures for Clean Water Fund expenditures related to agricultural and other nonpoint pollution: (1) the percentage of Clean Water Fund dollars spent on protection, restoration, and implementation projects;[145] and (2) the number of BMPs

141. FISCAL ANALYSIS DEP'T, MINN. H.R., ISSUE BRIEF: 2008 CONSTITUTIONAL AMENDMENT AUTHORIZED—SALES TAX INCREASE PROPOSED FOR NATURAL RESOURCE AND CULTURAL HERITAGE PURPOSES 1 (2008), *available at* http://www.house.leg.state.mn.us/fiscal/files/ib2008Salestaxamend.pdf.

142. MINN. CONST. art. XI, § 15. Five percent of the Clean Water Fund is dedicated to drinking water protection. FISCAL ANALYSIS DEP'T, *supra* note 141, at 3.

143. FISCAL ANALYSIS DEP'T, *supra* note 141, at 4. Shortly after the Legacy Amendment was passed, the legislature established the Clean Water Fund to receive a portion of the sales tax revenues. Money deposited in the Clean Water Fund may be spent to "prevent surface waters from becoming impaired and to improve the quality of waters listed as impaired." MINN. STAT. § 114D.20, subdiv. 3(7).

144. MINN. STAT. § 114D.50.

145. MINN. POLLUTION CONTROL AGENCY ET AL., CLEAN WATER FUND PERFORMANCE REPORT 7 (2012), *available at* http://www.legacy.leg.mn/sites/default/files/resources/2012%20Clean%20Water%20Fund%20Performance%20Report_low%20resolution%20for%20web.pdf. In fiscal year 2010–2011, the legislature appropriated $93.5 million for protection, restoration, and improvement activities (63% of the Clean Water Fund Appropriation). *Id.* The appropriation is expected to rise to $104 million in fiscal year 2012–2013. *Id.*

installed.[146] There are, however, no water quality performance measures for nonpoint incentive expenditures.[147]

Despite the significant federal and state financial investments to address agricultural pollution through the CWA, the Farm Bill, and the Legacy Amendment, these voluntary programs are by and large considered unsatisfactory.[148] Although billions of dollars have been expended on these programs, skeptics note that they have resulted in marginal success and question whether it is realistic to expect taxpayers to continue to fund voluntary environmental programs to address agricultural sources of water pollution.[149] Others argue that continuing to invest in voluntary incentive-based programs may simply perpetuate "the notion that farmers must be 'bribed' to engage in sound, conservation-minded practices [and] has had the subtle effect of promoting the idea that farmers have a 'right' to engage in environmentally destructive practices and must be paid to change those practices."[150]

Minnesota's experience on the Minnesota River is illustrative of the shortcomings of these voluntary agricultural programs. As early as 1989, it was clear that sediment, phosphorus, and nitrogen loading were significant problems in the Minnesota River.[151] In 1992 Governor Arne Carlson announced a ten-year initiative to "make the Minnesota River swimmable and fishable."[152] Shortly thereafter the Minnesota River Citizens Advisory Committee (CAC)

146. *Id.* at 15–16.

147. *Id.*

148. Cannon, *supra* note 72, at 628. USDA programs include: the Conservation Reserve Program (CRP), under which farmers are paid to commit to enroll and convert highly erodible and environmentally sensitive lands to vegetation cover, native grasses, trees, and riparian buffers for rental payments; the Conservation Reserve Enhancement Program (CREP), which leverages CRP money to enhance the CRP; the Environmental Quality Incentives Program (EQIP), which provides technical, financial, and educational assistance to landowners engaged in livestock and agricultural production; and the Wildlife Habitat Incentive Program (WHIP), which provides up to a seventy-five percent cost-share for landowners to improve fish and wildlife habitat. *See* McElfish et al., *supra* note 4, at 91–96 (describing USDA environmental incentive programs).

149. Williams, *supra* note 12, at 27–28.

150. *Id.* at 28.

151. KRIS SIGFORD, MINN. CTR. FOR ENVTL. ADVOCACY, MINNESOTA RIVER CLEAN-UP: TEN YEARS LATER 2–3 (2002), *available at* http://www.mncenter.org/LinkClick.aspx?fileticket=Wu-DGUKraCg%3D&tabid =322; MINN. POLLUTION CONTROL AGENCY, MINNESOTA RIVER BASIN PLAN 5–6 (2001), *available at* http://www.pca.state.mn.us/index.php/view-document.html?gid=9946 [hereinafter MINNESOTA RIVER BASIN PLAN].

152. MINNESOTA RIVER BASIN PLAN, *supra* note 151, at 6.

recommended that drainage ditches across the Minnesota River basin be treated as tributaries and that the state "mandate practices to control runoff if voluntary compliance does not work."[153] Over the next decade Minnesota spent almost $1.2 billion on efforts to curb nonpoint pollution in the Minnesota River.[154] Seventy percent of this expenditure was made in payments to farmers to implement conservation measures or retire farmland,[155] and another $600 million was spent through CRP and CREP to purchase agricultural conservation easements.[156] Despite these efforts, only 100,000 acres of the seven million acres of cultivated cropland in the Minnesota River basin were held in reserve, and the tributaries of the Minnesota River basin still showed high levels of nutrients and suspended solids,[157] causing the Minnesota Center for Environmental Advocacy to recommend that Minnesota adopt agricultural performance standards, target agricultural conservation subsidies, and improve agricultural drainage ditch systems.[158]

In 2008, twenty years after Governor Carlson's pronouncement, the Minnesota River was listed by American Rivers as one of the ten most endangered rivers in the United States.[159] As of 2009, sediment loads in the Minnesota River at St. Peter were 300% above sediment loads at Judson, making the Minnesota River a major contributing factor in increased sedimentation rates in Lake Pepin.[160] And while phosphorus levels have shown a modest decrease across the basin, most declines are attributed to a decrease in discharge rates from wastewater treatment facilities managed under the NPDES program.[161] Further reductions are needed to reduce high-level algae growth and to meet water quality

153. SIGFORD, *supra* note 151, at 2–3.
154. *Id.* at 10.
155. *Id.*
156. *Id.* at 7.
157. *Id.* at 15–17.
158. *Id.* at 18–21.
159. MINN. STATE UNIV., MANKATO WATER RES. CTR. ET AL., STATE OF THE MINNESOTA RIVER: SUMMARY OF SURFACE WATER QUALITY MONITORING 2000–2008, at 3 (2009), *available at* http://mrbdc.mnsu.edu/sites/mrbdc.mnsu.edu/files/public/reports/basin/state_08/2008_fullreport1109.pdf [hereinafter STATE OF THE MINNESOTA RIVER 2008].
160. *Id.* at 14.
161. Minn. Pollution Control Agency, *Dashboard: Environmental and Performance Measures* (2012) (on file with author).

standards for the Minnesota River.[162] The conclusion: after twenty years of cleanup efforts and nearly a billion dollars in public expenditures on voluntary incentive programs intended to address agricultural pollution, "the Minnesota River is . . . not much better than it was in 1990."[163] Certainly, the experience of the Minnesota River raises the question—can we continue to rely on the same old voluntary, incentive-based programs to address agricultural nonpoint pollution?

### *B. Four Elements Necessary for Successful Voluntary Programs*

The general failure of voluntary incentive programs to adequately address agricultural sources of water pollution is grounded in the failure to strategically target resources to the areas of greatest need; the reliance on the wrong performance measures; and the lack of robust monitoring, reporting, and enforcement.[164] The literature on successful voluntary environmental programs also suggests that voluntary environmental programs are most successful where there is a credible enforcement threat that can be implemented if voluntary programs fail.[165] Minnesota's past experience suggests that voluntary programs must meet certain base criteria to be successful.

First, state voluntary programs must actively target those watersheds that are most challenged and those farms that offer the greatest opportunity to significantly improve water quality. It is not enough to have BMPs on the ground; BMPs must be in locations that matter. While participation is key to any voluntary program,[166] the nature of the participant greatly determines the outcome of the program. States can no longer afford to take the first farmer that walks in the door regardless of his or her good intentions; state voluntary programs must target those farms where BMP implementation will have the greatest impact on water quality.

Second, while testing and developing BMPs is essential, adoption of BMPs without more can no longer be the measure of success.[167] The ultimate measure of success must be sustained and

162. STATE OF THE MINNESOTA RIVER 2008, *supra* note 159, at 16–17.
163. Marcotty, *supra* note 6.
164. Cannon, *supra* note 72, at 628.
165. Dowd et al., *supra* note 121, at 152.
166. *Id.*
167. McElfish et al., *supra* note 4, at 160 (noting that while the eLINK system provides a good measure of participation, the system does not measure

measurable improvement in water quality. Financial awards and incentives must be premised on improved water quality. If improvement is not detected in a reasonable time, the states, the EPA, and the USDA must pull public investments and move on. Additionally, if the tax-paying public is to continue to subsidize these voluntary farm conservation programs, either through financial incentives or through releases from government regulation, then, as prudent managers of public resources, the states and the EPA must provide some certainty that the public's investments will produce long-term results and report these results on an ongoing basis.

Third, the states and the EPA must devote resources to improvements in monitoring, reporting, and enforcement. They must go into the field and determine whether BMPs are actually performing the desired hydrologic functions. More importantly, monitoring requires actual field measurements, not modeled estimates of the impacts of BMPs on water quality. Surely if Minnesota's experience with the Minnesota River has taught anything, it is that what was modeled (e.g., significant reductions in soil erosion and nutrients like phosphorus and nitrogen) was not what was actually happening in the watershed. A significant first step in this direction would be to regularly test the outflow from drainage ditch systems and streams in the vicinity of participating farms.

Fourth, there must be real consequences for the failure to participate in the voluntary program in the form of a robust regulatory program. Such a regulatory program would serve both as an inducement to participate in voluntary programs and a deterrent to free riders. Without the threat of a regulatory program, there is little new incentive for farmers to participate in a voluntary program. In fact, the absence of a regulatory program arguably creates a disincentive to participate in voluntary programs to the extent that those farmers that do not participate in the program receive the benefit of the program's liability release without bearing any of the burdens of implementing conservation practices or BMPs. Can the Ag Certainty Program meet these minimal threshold requirements?

environmental results directly).

## IV. THE PROPOSED AG CERTAINTY PROGRAM

The Ag Certainty Program is modeled on the sage grouse conservation voluntary certainty program adopted in the West, a program designed to preclude the U.S. Fish and Wildlife Service (FWS) from placing the sage grouse on the endangered species list.[168] To understand how the parties intend the Ag Certainty Program to operate, it is first helpful to understand the parameters of the Sage Grouse Initiative.

### *A. The Sage Grouse Initiative*

The sage grouse is a chicken-like, ground-dwelling bird whose primary habitat is the large swaths of contiguous sagebrush that historically dominated many parts of the American West.[169] Sage grouse populations were once so numerous in the American West that they would "blacken the sky."[170] Their historic range extended across thirteen states and three Canadian provinces and totaled 463,500 square miles.[171] The national sage grouse population has substantially declined,[172] and today sage grouse occupy fifty-six percent of their historic range.[173]

It is widely believed that a significant factor contributing to the decline of sage grouse populations is habitat destruction and fragmentation attributed to development.[174] Unfortunately for the sage grouse, large portions of its remaining habitat "coincide with prime areas for natural gas development, wind energy projects, grazing allotments, [and] transmission lines."[175] In 2002, the FWS received a petition to list the sage grouse.[176] What ensued was a tale

168. Press Release, U.S. Envtl. Prot. Agency, *supra* note 15; Janet Kubat Willette, *Ag Water Quality Advisory Council Holds First Meeting*, AGRINEWS (Aug. 13, 2012, 12:56 PM), http://www.agrinews.com/printStory.php?storyID=4731.

169. 12-Month Findings for Petitions to List the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered, 75 Fed. Reg. 13,910, 13,912, 13,916 (proposed Mar. 23, 2010).

170. Elizabeth A. Schulte, *The Sage Grouse Rebellion*, 25 NAT. RESOURCES & ENV'T 59, 59 (2011). In 1950, the estimated sage grouse population was between 1.6 and 16 million. 75 Fed. Reg. at 13,920.

171. 75 Fed. Reg. at 13,917.

172. *Id.* at 13.921. Current population estimates range from 100,000 to 500,000. *Id.*

173. *Id.* at 13.917.

174. *Id.* at 13.923.

175. Schulte, *supra* note 170, at 60.

176. 75 Fed. Reg. at 13.910. The sage grouse was designated as a potential candidate for listing in 1985. *Id.*

of high drama that had all "the hallmarks of a Hollywood western, featuring conflict and intrigue among the tumbleweed, federal agents accused of tampering with information and intimidating personnel, and a 'hanging judge' striking down perceived outlaw behavior."[177] The drama was caused in part by the constraints of the Endangered Species Act (ESA). The ESA extends protections to listed endangered and threatened species,[178] including the designation of critical habitat.[179] The FWS has broad discretion to determine which species merit listing as threatened or endangered, but listing determinations must be made "on the basis of the best scientific and commercial data available."[180] Once a species is listed the FWS is required to designate critical habitat.[181]

Listing affords listed species certain protections, including protection from "takes."[182] The taking of a species includes harming the species—any act that kills or injures wildlife; harm includes "significant habitat modification or degradation" that may impair a species' essential behavioral patterns.[183] Listing the sage grouse and the designation of its critical habitat would substantially constrain energy development and ranching activities on both private and federal lands,[184] adversely impacting regional economies.[185] The potential impacts of a sage grouse listing caused Interior Secretary Norton to characterize the sage grouse as the

177. Schulte, *supra* note 170, at 59.

178. The ESA requires federal agencies to limit actions that would "take" listed species and prohibits commercial or private "takings" of species or their habitat. 16 U.S.C. §§ 1536(a), 1538(a) (2006). For a detailed discussion of the legislative history of the ESA and the listing process, see generally Sherry A. Enzler & Jeremy T. Bruskotter, *Contested Definitions of Endangered Species: The Controversy Regarding How to Interpret the Phrase "A Significant Portion of a Species' Range"* 27 VA. ENVTL. L.J. 1 (2009).

179. § 1532(5)(A)(i).

180. *Id.* § 1533 (b)(1)(A).

181. *Id.* § 1533 (a)(3)(A)(i). Critical habitat is "the specific areas within the geographical area occupied by the species, at the time it is listed . . . , on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection . . . ." *Id.* § 1532(5)(A)(i).

182. *Id.* §§ 1532(19), 1538(a)(1)(B).

183. 50 C.F.R. § 17.3 (2012). *See generally* Babbitt v. Sweet Home Chapter of Cmtys. for a Great Or., 515 U.S. 687 (1995) (affirming the FWS definition of "take" to include habitat destruction).

184. Amanda R. Garcia, *The Sage Grouse Debate: Cost-Benefit Analysis and the Discourse of the Endangered Species Act*, 14 N.Y.U. ENVTL. L.J. 572, 596–98 (2006) (discussing the economic impacts of listing the sage grouse).

185. Robert Tee Spjute, *Weathering the Storm: Finding Safe Harbors in ESA Controversy*, 30 J. LAND RESOURCES & ENVTL. L. 331, 339 (2010).

"spotted owl of the Intermountain West"[186] and launched a proposal to amend the ESA.[187]

One management strategy put forward by the federal government to avoid a protracted and a potentially brutal listing fight was to promote the adoption of voluntary conservation agreements (VCA), encouraging landowners to voluntarily set aside and restore habitat in order to avoid species listings and the restraints imposed by critical habitat designation.[188] Theoretically, the threat of listing together with the ESA's regulatory restrictions on land use would serve as a hammer inducing participation in habitat conservation programs.[189] Additionally, the potential ESA regulatory restrictions would act as a deterrent to removing lands from conservation status as commodity market and land prices increase. In exchange for entering into VCAs, individual landowners would receive assurances that in the event of a sage grouse listing, VCA participants would be exempt from more extensive land use restrictions that might be imposed by critical habitat designation.[190] VCA participants may or may not receive monetary payments to further induce participation.[191] It was release from the regulatory constraints of the ESA that served as the primary inducement to participate in the VCA program.[192] A secondary inducement is the fact that if the cumulative impact of VCAs increased species populations, the need to list would be negated.

In 2010, the FWS and the Natural Resources Conservation Service (NRCS) entered into a collaborative agreement to undertake landscape-level habitat improvements across the sage grouse range through the Sage Grouse Initiative (SGI).[193] The SGI

186. Garcia, *supra* note 184, at 575.

187. *Id.* at 574.

188. Andrew G. Frank, *Reforming the Endangered Species Act: Voluntary Conservation Agreements, Government Compensation and Incentives for Private Action*, 22 COLUM. J. ENVTL. L. 137, 144 (1997).

189. *Id.*

190. *Id.* at 146–47.

191. Gregory A. Hicks, *Protecting and Promoting Wildlife Habitat on State and Private Land in Washington's Arid Interior*, 4 HASTINGS W.-NW. J. ENVTL. L. & POL'Y 13, 16 (1997).

192. Frank, *supra* note 188, at 146–47.

193. *See generally* FISH AND WILDLIFE SERV., CONFERENCE REPORT FOR THE NATURAL RESOURCES CONSERVATION SERVICE SAGE-GROUSE INITIATIVE (SGI) 6, app. 1 (2010), *available at* ftp://ftp-fc.sc.egov.usda.gov/ID/programs/sage-grouse/sg_conference_report_073010.pdf; NATURAL RES. CONSERVATION SERV., INTRODUCTION TO NRCS' NEW SAGE-GROUSE INITIATIVE: WILDLIFE CONSERVATION

strategically uses VCAs to preserve sage grouse habitat in sage grouse "core areas" with the ultimate goal of increasing sage grouse populations to meet a seventy-five percent abundance threshold.[194] Meeting this goal would preclude the need to list the species.[195]

The NRCS took the lead in enlisting landowners using VCAs. By entering into VCAs, individual landowners were assured that they would be insulated from future ESA land use restrictions in the event the sage grouse was listed.[196] This protection was afforded because, by participating in the SGI, the landowner was already engaged in the habitat protection necessary to restore species populations.[197] The SGI included regular scientific monitoring to assess the status of sage grouse populations and their response to habitat conservation practices, and to assure attainment of long-term sage grouse restoration goals.[198] Landowners that participated in the SGI were also eligible for federal WHIP and EQIP grant funding.[199]

The SGI has several important features of effective voluntary programs. First, the SGI has strategic natural resource targets. Efforts expended under the initiative are focused or targeted on core areas—areas of habitat important to sage grouse viability and geographic areas most likely to contribute to species viability. Second, the SGI has a specific resource-based goal—increased sage grouse populations to meet the seventy-five percent abundance threshold.[200] The goal's focus is increased viability of the sage grouse, not the number of acres under VCAs. Third, actual field measurements and monitoring of sage grouse populations are used to determine the success or failure of the SGI. Finally, the initiative is supported by a regulatory scheme with significant consequences

THROUGH SUSTAINABLE RANCHING (2010) [hereinafter INTRODUCTION TO NRCS' NEW SAGE-GROUSE INITIATIVE], *available at* http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcsdev11_023946.pdf.

194. *See* INTRODUCTION TO NRCS' NEW SAGE-GROUSE INITIATIVE, *supra* note 193, at 4.

195. *Id.* at 6.

196. *Id.*

197. *Id.*

198. *Id.* at 7.

199. *Greater Sage-Grouse Working Lands for Wildlife Initiative*, WYO. NAT'L RESOURCES CONSERVATION SERVICE, http://www.wy.nrcs.usda.gov/programs/SGI/SGI_EQIP.html (last visited Mar. 3, 2013). See *supra* note 148 for a description of WHIP and EQIP.

200. INTRODUCTION TO NRCS' NEW SAGE-GROUSE INITIATIVE, *supra* note 193, at 4.

for failure to participate and/or failure to comply with the VCAs' habitat restoration terms. If the VCA strategy fails, the sage grouse will be listed, critical habitat will be designated, and with that designation will come significant land use restrictions and regulations. It is the ESA stick that provides inducement to participate in the program and the release of ESA regulatory constraints provided by the VCAs that are the incentive to the landowner to participate in the program. This incentive, unlike monetary incentives, has the benefit of maintaining VCAs over time as land values increase. This brief analysis of the SGI suggests that the SGI is more likely to meet natural resource goals and increase sage grouse viability because it embodies the key elements necessary for a successful, voluntary environmental program. Sage grouse viability is not dependent upon random acts of conservation.

### *B. Applying the Lessons of the SGI to the Ag Certainty Program*

It is unclear whether the Ag Certainty Program will incorporate the threshold elements necessary to ensure improved water quality. The federal-state Ag Certainty MOU does not provide significant insight into how Minnesota's Ag Certainty Program will operate. The MOU indicates that Minnesota will develop and implement a certification program designed to encourage BMP adoption by agricultural producers while assuring agricultural producers that, by participating in the Ag Certainty Program, they are meeting federal and state water quality goals and standards.[201] A Technical Advisory Committee (TAC) will be formed to develop and implement the certification to "support" state water quality standards and goals.[202] The state and federal partners also agreed to prioritize state and federal funding to support the program's development and implementation.[203]

Further insight into how the federal partners intend the Ag Certainty Program to operate may be gleaned from the July 2011

201. STATE OF MINN., U.S. DEP'T OF AGRIC. & U.S. ENVTL. PROT. AGENCY, ENGAGING IN A STATE AND FEDERAL PARTNERSHIP IN SUPPORT OF THE MINNESOTA AGRICULTURAL WATER QUALITY CERTIFICATION PROGRAM 2 (2012) [hereinafter MOU], *available at* http://www.mda.state.mn.us/protecting/waterprotection/~/media/Files/protecting/waterprotection/awqcmou.ashx.

202. *Id.* at 2.

203. *Id.*

EPA-USDA Certainty Framework (Certainty Framework).[204] According to the Certainty Framework, two of the primary goals of the Ag Certainty Program are: (1) increasing adoption of conservation practices and BMPs by agricultural producers and (2) providing assurances to the agricultural operations that "investments in conservation practices" will yield economic and environmental returns "consistent with state water quality programs."[205] Interestingly, conferring certainty on producers for BMP implementation does not relieve the state of its obligation to meet TMDL allocations—the state would simply be required to look to other pollution sources to meet allocation requirements.[206]

What is particularly problematic is that the Certainty Framework does not include any of the essential elements of successful voluntary environmental programs. Outside of the indirect reference to environmental returns, there is scant reference to improved water quality in either the goals or objectives outlined in the Certainty Framework.[207] Unlike the SGI agreement between the FWS and the NRCS, which established both a clear recovery goal for the sage grouse and targeted federal investments to agricultural operations that are "core" sage grouse areas,[208] there is no suggestion in the Certainty Framework that federal and state investments should target those water bodies posing either the greatest water quality challenge or the greatest opportunity for water quality improvement. Nor is there any suggestion that the EPA abandon its voluntary-only approach if the Ag Certainty Program fails. Thus, there is no meaningful federal regulatory threat to induce long-term participation, a factor that was particularly important to the success of the SGI. If, then, the Ag Certainty Program is to incorporate those elements essential to successful voluntary programs, it will be left to the State of Minnesota and TAC to include them in the Ag Certainty Program

204. U.S. ENVTL. PROT. AGENCY & U.S. DEP'T OF AGRIC., CERTAINTY FRAMEWORK 1 (2011) [hereinafter CERTAINTY FRAMEWORK], *available at* http://www.mn.nrcs.usda.gov/partnerships/mstc/2011_Oct25/Certainty%20Framework%20FINAL%20july%2019%202011.pdf.

205. *Id.* at 1.

206. *Id.* Looking to regulated pollution sources for further pollution reductions is inequitable. Hypothetically, if there is no improvement in water quality, the state would look to other sources, including point sources, to reduce pollution loads, even though said sources have significantly reduced their pollution loads under the terms of their WLAs and NPDES permits.

207. *Id.*

208. *See* discussion *supra* Part IV.A.

design.

Early indications that the state will take on this task are not particularly hopeful. In the spring of 2011, MnDAg announced the membership of the TAC. Of the fifteen members, only three represent environmental interests, while agricultural business interests, including the Minnesota Farm Bureau, the major commodity groups, and individual farmers, hold nine seats.[209] The very membership of TAC suggests to some that the integrity of Minnesota's waters over the next five to ten years will be left in the hands of agricultural business interests.[210]

The TAC Charge does leave room to incorporate some of the elements of successful voluntary environmental programs.[211] The TAC Charge directs TAC to develop a "*voluntary*" program that enhances adoption of BMPs to improve water quality while providing participating agricultural producers the regulatory certainty that "our water resources and farmers both deserve."[212] This directive is sufficiently vague so as to permit TAC to recommend both water quality targeting and goals. However, the primary thrust of the TAC Charge appears to be to encourage program enrollment with little attention given to water quality outcomes. The five specific questions and the numerous sub-questions included in the TAC Charge are directed toward participant identification, the scope of certification, the certainty provided to agricultural producers, technical assistance, identification of additional incentives to further induce participation, and program management.[213] Only one of the sub-questions remotely addresses water quality targeting—"Should the certification program be a whole farm approach or [target] specific segments related to water quality?"[214] A plain reading of the TAC

209. *Minnesota Agricultural Water Quality Certification Program: Advisory Committee*, MINN. DEPARTMENT AGRIC., http://www.mda.state.mn.us/protecting/waterprotection/awqcprogram/committeemembers.aspx (last visited Jan. 8, 2013).

210. Don Shelby, *Cities, Industries Have Reduced Their Mississippi River Pollution—Now It's Farmers' Turn*, MINNPOST (Jan. 31, 2012), http://www.minnpost.com/environment/2012/01/cities-industries-have-reduced-their-mississippi-river-pollution-%E2%80%94-now-its-farme.

211. MINN. DEP'T OF AGRIC., CHARGE TO THE MINNESOTA AGRICULTURAL WATER QUALITY CERTIFICATION PROGRAM TECHNICAL ADVISORY COMMITTEE (2012) [hereinafter TAC CHARGE].

212. *Id.* at 1.

213. *Id.* at 1–2.

214. *Id.* at 1.

Charge indicates the only real discernible distinction between the Ag Certainty Program and other voluntary agricultural water quality programs is the addition of "certainty" or the release from potential future liability. In comparing the parameters of the Ag Certainty Program TAC Charge with the SGI parameters, it is clear that the only significant parallel between the two programs is the "regulatory certainty" that both programs are intended to provide.

In June 2012, before the first meeting of TAC, the NRCS Minnesota State Technical Committee Subcommittee on Certainty (MSTC Subcommittee) submitted a set of "recommendations" to the Minnesota Agriculture Commissioner outlining how Minnesota's Ag Certainty Program should operate.[215] These recommendations were presented to TAC for consideration at its July 30, 2012, meeting.[216] The MSTC Subcommittee recommendations do not embrace the core elements of successful voluntary environmental programs; rather, they support adopting the elements of failed voluntary, incentive-based water quality programs.

First, although the MSTC Subcommittee recommends targeting the Ag Certainty Program, the targets are not resource based. It recommends the Ag Certainty Program target a handful of watersheds where there is a diversity of land use and where agricultural producers have willingly participated in voluntary, incentive-based water quality programs in the past,[217] a

215. The July 30, 2012, TAC minutes characterize the MSTC Subcommittee submittal as recommendations, although the MSTC Subcommittee characterizes the submittal as a response to questions posed to the MSTC by the Minnesota Commissioner of Agriculture. Minn. Agric. Water Quality Certification Program Advisory Comm., *July 30, 2012 Minutes*, MINN. DEPARTMENT AGRIC. (July 30, 2012), http://www.mda.state.mn.us/protecting/waterprotection/awqcprogram/minutesandagendas/july302012minutes.aspx [hereinafter *July 30, 2012 Minutes*]; Letter from Don Baloun, State Conservationist, NRCS, & Warren Formo, Exec. Dir., Minn. Agric. Water Res. Ctr., to David Frederickson, Comm'r, Minn. Dep't of Agric. (June 27, 2012) (on file with author). Interestingly, the Minnesota Agricultural Water Resources Center is a membership organization whose membership is exclusively composed of the major agricultural commodity organizations and the Minnesota Farm Bureau. *MAWRC Member Organizations*, MINN. AGRIC. WATER RESOURCE CENTER, http://www.mawrc.org/mawrc-members.html (last visited Mar. 3, 2013).

216. *July 30, 2012 Minutes*, *supra* note 215.

217. Memorandum from MSTC Subcomm. to David J. Frederickson, Comm'r of Agric. (June 27, 2012), *available at* http://www.mn.nrcs.usda.gov/partnerships/mstc/2012_July12/Final%20NRCS%20subcommittee%20report%20w%20cover%20letter.pdf.

recommendation adopted in part by the TAC.[218] This recommendation perpetuates one of the significant flaws of past voluntary agricultural incentive-based programs—the failure to target programs to those areas most likely to result in the greatest water quality improvement or those watersheds with the greatest impairments. This recommendation deviates from the SGI, on which the Ag Certainty Program is purportedly modeled. The SGI's strategic targets are resource based—those core sage grouse areas likely to increase the viability of the species. The target was linked to a concrete resource goal—increased viability of the sage grouse. It was the sage grouse that drove participant selection; the willingness of agricultural producers to participate in the program was a secondary factor. If the Ag Certainty Program is to succeed in improving our water quality, TAC must target watersheds with the greatest impairment or watersheds where the implementation of BMPs have the greatest likelihood of significantly improving ambient water quality in the receiving body.

Second, the MSTC Subcommittee recommendations make little reference to actual improvements of water quality. Its recommended program goal appears to be to assure the public that certified farms are managed responsibly to improve water quality while improving the public's understanding of agricultural production systems and the scope of BMP implementation.[219] And while the MSTC Subcommittee lists improved water quality as an outcome, it does not recommend establishing quantifiable water quality goals for the Ag Certainty Program.[220] Rather, it suggests adopting a "trust us" standard—trust that if we enter into these agreements and implement conservation measures and BMPs, the water will improve. This strategy was also largely adopted by TAC, whose recommendations focus on BMP implementation rather than water quality improvement goals, assuming that BMP implementation will result in improved water quality.[221] This

218. The TAC recommendation is limited to a handful of watersheds in the state's three agricultural subregions, representing a diversity of agricultural production. Memorandum from the Minn. Agric. Water Quality Certification Program Advisory Comm. to David J. Frederickson, Comm'r of Agric. 2 (Nov. 14, 2012), *available at* http://www.mda.state.mn.us/protecting/waterprotection/~/media/Files/protecting/waterprotection/mawqcpadcomrecs2012.ashx.

219. Memorandum from MSTC Subcomm. to David J. Frederickson, *supra* note 217.

220. *Id.*

221. *See generally* Memorandum from the Minn. Agric. Water Quality Certification Program Advisory Comm. to David J. Frederickson, *supra* note 218.

approach stands in sharp contrast to the SGI, which set a concrete and quantifiable resource goal for the SGI—an increase in sage grouse populations.

If the Ag Certainty Program is to improve Minnesota's water quality, then TAC must set actual, quantifiable water quality goals for both the participating watersheds (interim water quality standards) and the participants in the program (quantifiable load reductions). This could be done by setting interim ambient water quality goals for the selected watershed and at the same time establishing quantifiable load reduction goals for program participants. The latter could be monitored by testing discharge from the drainage ditch systems of participating agricultural producers.

This strategy has been particularly successful in the Everglades, where the Everglades Forever Act (EFA) and a consent decree require agricultural producers to meet a quantitative phosphorus reduction schedule designed to meet an interim ambient phosphorus water quality standard of fifty ppb and a long-term ambient phosphorus water quality standard of ten ppb.[222] As a result of this strategy, by 2005, phosphorus levels in the Everglades had dropped to fifty ppb.[223]

Third, although the MSTC Subcommittee recommends that the state use independent, third-party certifiers to approve participants' conservation plans and verify plan implementation and BMP placement, it does not recommend testing or monitoring.[224] While review of conservation plans and verification of plan implementation is an important aspect of this program, the Minnesota River experience demonstrates that verification of BMP

222. FLA. STAT. ANN. § 373.4592 (West, Westlaw through 2012 Reg. Sess.); United States v. S. Fla. Water Mgmt. Dist., No. 88-1886-CIV-HOEVELER (S.D. Fla. Apr. 27, 2001) (omnibus order approving 1995 request to modify settlement agreement to reflect the provisions of the EFA), *available at* http://www.evergladeshub.com/lit/LEGAL/Hoeveler01-USA-Micco-8-1886civHoeveler-Decree-010427.pdf. The sugar industry agreed to meet rolling phosphorus reduction goals for discharges coming off sugar fields to assure progress toward the ambient water quality goals of fifty ppb and ten ppb. U.S. SEC'Y OF THE INTERIOR ET AL., STATEMENT OF PRINCIPLES (1993), *available at* http://www.law.miami.edu/library/everglades/ (follow "Documents" hyperlink; then follow "Statement of Principles" hyperlink).

223. NAT'L PARK SERV. & S. FLA. NATURAL RES. CTR., JOINT REPORT TO CONGRESS: EVERGLADES WATER QUALITY 16 (2005), *available at* http://digitalcollections.fiu.edu/sfrc/pdfs/FI11060808.pdf.

224. Memorandum from MSTC Subcomm. to David J. Frederickson, *supra* note 217.

placement and estimates of pollution load reductions using eLink are not sufficient to ensure that the program is actually yielding results in the form of cleaner water. TAC has proposed using a modified Water Quality Index and Conservation Measurement Tool, but it is unclear whether either of these tools will require actual detailed water monitoring—as opposed to the SGI, which actually monitored bird populations throughout the course of program implementation.[225]

Finally, it is clear that one of the most important elements of successful voluntary environmental programs is the threat of regulatory controls. In the case of the SGI, it was the threat of a sage grouse ESA listing coupled with the associated land use restrictions that motivated participation by agricultural producers. There is no existing regulatory leverage in Minnesota. The MPCA has consistently relied upon voluntary programs to address agricultural nonpoint pollution. Neither the TAC Charge[226] nor the MSTC Subcommittee recommendations[227] suggest that agricultural producers that choose not to participate in the program should or will face actual regulatory controls.

Although Governor Dayton apparently understands that a regulatory threat might be necessary to ensure program success, there is no history to suggest that Minnesota is willing to take the regulatory step. Absent some concrete indication to agricultural operators that Minnesota intends to regulate agricultural nonpoint pollution, Dayton's threat that those agricultural producers that do not participate in the Ag Certainty Program may be forced to do so by law[228] is little more than a hollow threat. This is not to say that, with a little creativity, Minnesota could not legally require agricultural operators to abate water pollution.

For example, Minnesota Statutes section 115.061 imposes a duty to report and abate the discharge[229] "*of any substance or*

225. Memorandum from the Minn. Agric. Water Quality Certification Program Advisory Comm. to David J. Frederickson, *supra* note 218, at 5. Nor do the final TAC recommendations include a requirement to measure water quality, relying instead on a modification of the Conservation Measurement Tool and Water Quality Index, both modeling formulas designed to assess the anticipated water benefits of BMPs. *Id.*

226. *See generally* TAC CHARGE *supra* note 211.

227. *See generally* Memorandum from MSTC Subcomm. to David J. Frederickson, *supra* note 217.

228. Shelby, *supra* note 210.

229. A discharge is "the addition of any pollutant to the waters of the state . . . ." MINN. STAT. § 115.01, subdiv. 4 (2010).

*material*" that may cause water pollution.[230] Violators may be required to pay remediation and restoration costs and may be subject to a civil penalty of up to $10,000 a day.[231] Although section 115.071 contains an agricultural exemption, the exemption is limited "to air and *land pollution* caused by" non-permitted agricultural operations.[232] Land pollution involves the disposal of waste on land,[233] including "solid waste, sewage sludge, . . . hazardous waste,"[234] garbage, refuse, and sludge from agricultural operations.[235] Sediment discharged from agricultural operations into Minnesota's rivers, lakes, and streams is essentially loose sand, clay, silt, and soil[236] carried by runoff. It is not land pollution. As such, sediment discharge falls outside the land pollution exemption—it is a discharge of a substance or material causing water pollution within the purview of section 115.061(a) and subject to regulation. The threat of a civil penalty for discharging sediments into the waters of the state in violation of Minnesota Statutes section 115.071 could constitute a sufficient regulatory threat to induce long-term participation in the Ag Certainty Program, should the state choose to use the threat.

In short, for the Ag Certainty Program to be successful, Minnesota must actually be prepared to impose regulatory restraints on those agricultural operations that do not choose to participate in the Ag Certainty Program. Absent such a threat, it is

230. *Id.* § 115.061(a) (emphasis added).
231. *Id.* § 115.071, subdiv. 3.
232. *Id.* (emphasis added).
233. Land pollution is "the presence in or on the land of any waste in such quantity, of such nature and duration, and under such condition as would affect injuriously any waters of the state." *Id.* § 116.06, subdiv. 14.
234. *Id.* § 115A.03, subdiv. 34. Hazardous waste is

> any refuse, sludge, or other water material or combination of refuse, sludge or other waste materials in solid, semisolid, liquid, or contained gaseous form which because of its quantity, concentration, or chemical, physical, or infectious characteristics may (a) cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (b) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

*Id.* §116.06, subdiv. 11.
235. *Id.* § 116.06, subdiv. 22.
236. *See* MID-AM. REG'L COUNCIL, WHAT IS SEDIMENT POLLUTION? (n.d.), *available at* http://cfpub.epa.gov/npstbx/files/KSMO_Sediment.pdf; *Sediments*, U.S. ENVTL. PROTECTION AGENCY, http://water.epa.gov/polwaste/sediments/ (last updated Jan. 31, 2012).

unclear that the release provided by the Ag Certainty Agreements will be a sufficient inducement to encourage meaningful participation in the program. And those agricultural producers that choose not to participate in the Ag Certainty Program will indirectly reap the benefit created by participating producers. Because if the state is unwilling to regulate for the five or ten years it takes to test this program, the non-participants will get a five-to-ten year pollution entitlement.

## V. CONCLUSION

In passing the Legacy Amendment, the citizens of Minnesota evidenced both a commitment to clean water and a willingness to expend public resources to ensure a clean water legacy for future generations of Minnesotans. One of Minnesota's greatest clean water challenges is agricultural nonpoint pollution. A meaningful method of controlling agricultural pollution is essential to ensure Minnesota's clean-water legacy. To date, Minnesota has relied on voluntary, incentive-based programs to meet the challenges posed by agricultural water pollution. But voluntary, incentive-based programs have been unsuccessful. An analysis of these failed programs, together with an analysis of the SGI, suggests that voluntary environmental programs can be successful if the incentives are targeted to improve water quality, the program includes quantifiable resource/water quality goals, both participant performance and the resource are monitored throughout the life of the program, and the program is backed by the threat of real regulatory controls.

The Minnesota Ag Certainty Program proposes a new approach to address agricultural water pollution. It uses the release from future regulation and financial incentives to encourage agricultural producers to participate in conservation practices. However, simply adding the inducement of regulatory certainty without more will not result in improved water quality. To ensure performance, the architects of the Minnesota Ag Certainty Program must target challenged watershed and agricultural operations presenting the greatest opportunity to improve water quality. They must set numeric water quality goals and continuously measure water quality to assure program performance. Finally, Minnesota must support the program with a meaningful threat to regulate agricultural water pollution. Without these parameters, Minnesotans have no more than a vague

assurance that the Minnesota Ag Certainty Program will result in improved water quality. Certainly the citizens of Minnesota, in passing the Legacy Amendment, expected that their investment in Minnesota's waters would result in more than a vague assurance that farmers are managing their farms responsibly to improve water quality.[237]

237. *See* Memorandum from MSTC Subcomm. to David J. Frederickson, *supra* note 217 (addressing questions about what assurances the program provides to the public).